This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim **37 (Currently Amended).** Carbon particles having surface filaments formed during the thermocatalytic decomposition of hydrocarbon fuel comprising in combination:

an approximately one micron diameter in average and from at least one to two orders of magnitude thicker than conventionally produced carbon nanofibers;

~~an~~ a hydrophobic, "octopus"-like structure, with a portion of the structure being substantially hollow, and each filament being substantially of longitudinal uniformity and of graphitic structure.

Claim **38 (Original).** The carbon particles of claim 37, having a property of oil film adsorption from a surface of water.

Claim **39 (Currently Amended).** The method of producing carbon particles having surface filaments of about one micron mean diameter, an "octopus"-like structure with a hollow portion, and longitudinal uniformity, of graphitic structure, comprising the steps of:

a) passing electrical current through carbon-based catalytic material and heating it to about 850°C to about 1200°C;

b) passing a stream of hydrocarbon fuel through ~~said~~ the carbon-based catalytic material with production of hydrogen-rich gas and carbon with filamentary surface deposited on the surface of ~~said~~ the catalytic material; and

c) recovering carbon particles with a filamentary surface.

Claim **40 (Currently Amended).** The method of Claim 39 wherein ~~said~~ the carbon-based catalytic material is carbon black and heating is to approximately 1000 °C.

Claims **41 - 43 (Cancelled).**